NASA Policy Directive

NPD 8700.2A
Effective Date: January 02, 2002
Expiration Date: January 02, 2009

COMPLIANCE IS MANDATORY

NASA Policy for Safety and Mission Assurance (SMA) for Experimental Aerospace Vehicles (EAV) (Revalidated 4/28/04)

Responsible Office: Office of Safety and Mission Assurance

1. POLICY

For experimental aerospace vehicles (EAV), it is NASA policy to:

a. Reserved.

b. Ensure that minimum safety and mission assurance (SMA) and information assurance requirements have been defined for NASA-developed or NASA-operated EAV's. Ensure SMA requirements support the mission success criteria for the EAV and NASA SMA policies.

c. Verify and validate that an assurance process is implemented for identifying and eliminating or mitigating hazards that may adversely affect EAV safety or cause EAV mission failure (Requirement 2017).

d. Formally certify SMA flight readiness as a part of the flight readiness review process for the EAV.

e. Ensure that an EAV developer has established and implemented appropriate and effective safety procedures and practices as a prerequisite to the NASA Administrator's approval of requests for providing of insurance, indemnification, and/or liability protection in accordance with 42 U.S.C. 2458c (Requirement 2019).

2. APPLICABILITY

a. This NASA Policy Directive (NPD) applies to NASA Headquarters and NASA Centers, including Component Facilities, and to the Jet Propulsion Laboratory (JPL) to the extent specified in its contract with NASA.

b. This NPD applies to any "Experimental Aerospace Vehicle," as defined by 42 U.S.C. 2458c (d)(3). For the purposes of this NPD, the term EAV includes a vehicle defined in 42 U.S.C. 2458c (d)(3)as: "an object intended to be flown in, or launched into, orbital or suborbital flight for the purpose of demonstrating technologies necessary for a reusable launch vehicle, developed under an agreement between the Administration and a developer." Additionally, the term EAV includes vehicles demonstrating reentry and landing technology in accordance with the above criteria. This NPD applies to the NASA-supported EAV programs/projects during all mission phases, from development through postflight/completion.

c. When indemnification has been requested, this NPD covers only the SMA portion of the indemnification process that determines whether the developer is following safety procedures and practices that are acceptable to NASA.

3. AUTHORITY

a. 42 U.S.C. 2473(c)(1), Section 203(c)(1) of the National Aeronautics and Space Act of 1958, as amended.

b. 42 U.S.C. 2458c, Section 309 of the National Aeronautics and Space Act of 1958, as amended.

4. REFERENCE

a. National Security Telecommunications and Information Systems Security Policy (NSTISSP) No. 12, "National Information Assurance (IA) Policy for U.S. Space Systems," January 2001 (administratively controlled document).

b. NPD 2810.1, "Security of Information Technology."

c. NPD 7120.4, "Program/Project Management."

d. NPD 8500.1, "NASA Environmental Management."

e. NPD 8700.1, "NASA Policy for Safety and Mission Success."

f. NPR 7120.5, "NASA Program and Project Management Processes and Requirements."

g. Eastern and Western Range (EWR) 127-1, "Range Safety Requirements."

5. RESPONSIBILITY

a. The Associate Administrator for Safety and Mission Assurance is responsible for the following:

(1) Ensuring appropriate SMA surveillance and independent assessment of EAV program/projects in accordance with NPD 8700.1, "NASA Policy for Safety and Mission Success."

(2) Leading the SMA management process to support the EAV flight readiness review process.

(3) Participating in the process for evaluating requests for insurance, indemnification, and liability protection in accordance with 42 U.S.C. 2458c (b)(2)(D).

(4) Executing NASA SMA flight certification signature authority for each NASA EAV operation or set of operations.

b. The Enterprise Associate Administrator sponsoring the EAV is responsible for the following:

(1) Ensuring that all risks are identified, reviewed, and eliminated or mitigated, and accepting any residual risk for NASA, to include the environmental requirements outlined in NPD 8500.1, "NASA Environmental Management."

(2) Ensuring a flight readiness review process is developed for each EAV program/project (Requirement 2006).

(3) Processing third-party indemnification requests by the contractor to the NASA Administrator for approval, with the concurrence of the Associate Administrator for Safety and Mission Assurance, the NASA General Counsel, and the NASA Chief Financial Officer, when potential injury to third parties is determined to be in excess of required insurance as specified in contracts with NASA (Requirement 2007).

c. The NASA General Counsel is responsible for interpreting and ensuring that requests for insurance, indemnification, and liability protection for EAV developers are processed in accordance with 42 U.S.C. 2458c (Requirement 2008).

d. The NASA Chief Financial Officer is responsible for ensuring that funds transfers are processed in accordance with 42 U.S.C. 2458c (Requirement 2009).

e. The EAV Program/Project Lead Center Director is responsible for assuring SMA requirements are incorporated and implemented in contracts, memoranda of agreement, cooperative agreements, grants, other governing agreements or instruments, or other acquisition instruments used for developing or acquiring EAV's (Requirement 2010).

f. The EAV Program/Project Lead Center SMA Director is responsible for the following:

(1) Ensuring that adequate SMA expertise is provided to the EAV Lead Program/Project Center Director and EAV program/project manager (Requirement 2011).

(2) Scheduling and executing the reviews and surveillance to assure the SMA processes are in place and effective to enable SMA flight (Requirement 2012). certification.

g. The EAV program/project manager is responsible for the following:

(1) Ensuring SMA and risk management requirements are defined and implemented for each test or operational scenario (Refer to NPD 7120.4, "Program/Project Management," NPR 7120.5, "NASA Program and Project

Management Processes and Requirements," and NPD 8500.1B, "NASA Environmental Management." (Requirement 2021).

(2) Defining a flight readiness review process, which includes SMA flight certification, for each EAV flight or set of flights. (Requirement 2023).

(3) Assuring the required data and supporting basis for an informed decision on third-party indemnification requests is prepared (Requirement 2024).

(4) Ensuring that applicable safety and mission success requirements defined in Eastern-Western Range (EWR) 127-1, "Range Safety Requirements," or the equivalent host range requirements document(s), have been coordinated and implemented with the host range. (Requirement 2025).

(5) Ensuring that applicable information assurance and information security requirements to support mission assurance are applied as specified in NSTISSP No. 12, "National Information Assurance (IA) Policy for U.S. Space Systems." (Requirement 2026).

(6) For operations outside of the control of NASA, ensuring that consultations are done with the NASA General Counsel, the Associate Administrator for External Relations, and the Associate Administrator for Safety and Mission Assurance regarding whether the outside entity has adequately addressed safety provisions (Requirement 2027). Consultations shall include the EAV Program/Project Lead Center SMA Director and the EAV Lead Program/Project Center Chief Counsel for review of safety, insurance, and indemnification provisions for operations performed outside the control of NASA (Requirement 30886).

6. DELEGATION OF AUTHORITY

None.

7. MEASUREMENTS

None.

8. CANCELLATION

None.

Revalidated 4/28/04

/s/ Michael D. Christensen for
Sean O'Keefe
Administrator

ATTACHMENT A: (TEXT)

(URL for Graphic)